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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/550,679

11/08/2005

Klaus Geiger

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OLIFF & BERRIDGE, PLC

P.O. BOX 320850

ALEXANDRIA, VA 22320-4850

EXAMINER

FAULK, DEVONA E

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

11/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/550,679

Applicant(s)

GEIGER ET AL.

Examiner

Devona E. Faulk

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 9/5/2007, with respect to the rejection(s) of claim(s) 1-15 under 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Reich .
2. The applicant has amended claim 5 to overcome the 112 rejection set forth in the previous office action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (hereafter AAPA) (page 1,27-page 3,line 10) in view of Reich, S. (DE 2716345).

Regarding claim 1, AAPA discloses a method of determining the acoustical transfer impedance $Z_{sub.t}$ between a first position and a listening position of a human being (page 2),

the method comprising generating an acoustical volume velocity Q in the listening position (page 2, lines 5-27),

measuring a response quantity p at the first position resulting from the volume velocity Q (page 2, lines 5-27), and

determining the acoustical transfer impedance $Z_{sub.t}$ as the response quantity p divided by the acoustical volume velocity Q , $Z_{sub.t}=p/Q$ (page 2, lines 5-27),

characterized in that the acoustical volume velocity Q is generated using a simulator (implicit) simulating acoustic properties of at least a head of a human being.

AAPA disclose that the simulator comprising a simulated human ear with an orifice (page 1, line 26-page 2, line 27) .

AAPA fails to disclose a sound source in the simulator and outputting the acoustical volume velocity through the orifice.

Reich discloses a simulator (7, Figure 19) including a simulated human ear (dummy or artificial head 7, Figure 2; See also AAPA, page 3, lines 12-15) and a sound source (8 and 9, Figure 2) in the simulator.

It would have been obvious to modify AAPA so that the simulator includes a simulated ear and a sound source in the simulator as taught by Reich so that the listener can have the perception of completely natural sound.

Regarding claims 2 and 7, AAPA as modified by Reich discloses wherein the simulator simulates the head and a torso of a human being (AAPA, page 1, lines 29-31)

. All elements of claim 2 are comprehended by the rejection of claim 1.

Regarding claim 3, AAPA as modified by Reich discloses wherein the simulator comprises a sound source in the interior of the simulator and a pair of microphones arranged to measure a pair of sound pressures in a canal leading from the sound source to the orifice, and that the method further comprises determining the volume velocity Q based on the pair of sound pressures. All elements of claim 3 are comprehended by the rejection of claim 1.

Regarding claim 4, AAPA as modified by Reich discloses wherein the response quantity is sound pressure. All elements of claim 4 are comprehended by the rejection of claim 3.

Regarding claim 5, AAPA as modified discloses measuring a sound pressure by at least one microphone (AAPA, page 3, lines 12-15). AAPA as modified fails to disclose measuring structural vibrations with at least one vibration sensor. The examiner takes official notice that it is well known in the art to use vibration sensors. It would have been obvious to modify AAPA as modified so that vibration sensors are used in order to detect any vibrations that may occur.

Regarding claims 6, 12-14, AAPA as modified by Reich discloses a simulator for use with the method according to claim 1 and simulating acoustic properties of at least a head of a human being, the simulator comprising a simulated human ear with an orifice in the simulated head and a sound source in the simulator for outputting the acoustical volume velocity Q through the orifice. All elements of claim 6 are comprehended by the rejection of claim 1.

Regarding claim 8, AAPA as modified by Reich discloses wherein the simulator comprises two orifices simulating a left ear and right ear respectively of the simulated human being. All elements of claim 6 are comprehended by the rejection of claim 6.

Regarding claim 9, AAPA as modified by Reich discloses wherein means are provided for selectively outputting sound signals through the simulated left ear or through the simulated right ear (Reich, see Figure 2 clearly indicates the sound I sound is outputted through the ears,). All elements of claim 9 are comprehended by the rejection of claim 8.

Regarding claim 10, AAPA as modified by Reich discloses wherein the simulator comprises means for measuring the sound output from the simulated ears. All elements of claim 10 are comprehended by the rejection of claim 6.

Regarding claim 11, AAPA as modified by Reich discloses wherein the means for measuring the sound output from the simulated ears comprises a pair of microphones for measuring the output sound volume velocity (AAPA, See page 3, lines 12-15). All elements of claim 11 are comprehended by the rejection of claim 10.

Claim 15 is rejected using AAPA, Reich and the official notice as applied above to claims 1 and 5.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devona E. Faulk whose telephone number is 571-272-7515. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DEF


XU MEI
PRIMARY EXAMINER